

**FIRE DEPARTMENT MECHANIC  
STUDY GUIDE**

A written examination for the class of **FIRE DEPARTMENT MECHANIC** to be administered in **BENTON FPD #4** on **JANUARY 24, 2017**, will consist of approximately 100 multiple-choice questions. The examination will test your knowledge in the following subject areas:

<b>SUBJECT AREA/KNOWLEDGE</b>	<b>APPROXIMATE % OF EXAM</b>
<b>SUSPENSION AND BRAKE SYSTEMS</b>  Knowledge of suspension and brake systems sufficient to perform maintenance, make repairs, or adjust the systems when needed.	14.0%
<b>COOLING SYSTEMS</b>  Knowledge of cooling systems sufficient to perform maintenance and repair when needed.	7.0%
<b>DRIVETRAIN/LUBRICATING/ELECTRICAL/EXHAUST AND EMISSIONS/FUEL SYSTEMS</b>  Knowledge of drivetrain, lubricating, electrical, exhaust, and emissions and fuel systems sufficient to perform maintenance, repairs or adjustments to the system when needed.	36.0%
<b>ENGINE MECHANICS</b>  Knowledge of gasoline and diesel engines sufficient to perform diagnosis of mechanical problems and to perform maintenance and repair.	14.0%
<b>GENERAL AUTOMOTIVE MAINTENANCE, REPAIRS, INSTRUMENTS, AND TOOLS</b>  Knowledge of general automotive equipment sufficient to troubleshoot, diagnose, and repair malfunctioning components, including the use and care of instruments and tools.	7.0%

SUBJECT AREA/KNOWLEDGE	APPROXIMATE % OF EXAM
<b>MANAGING EQUIPMENT/PROPERTY/SUPPLIES</b>  Knowledge of the management, maintenance, and purchase of equipment, property and supplies, including including self-contained breathing apparatus, inventory control, and the preparation of specifications on new equipment for public bids, and verifying that equipment is tested and meets applicable standards.	8.0%
<b>INSPECTION, MAINTENANCE, TESTING, AND REPAIR OF FIRE APPARATUS</b>  Knowledge of fire apparatus sufficient to perform inspection, maintenance, testing, and repairs, including rotary gear, pumps, water delivery systems, foam systems, aerial ladders, and hydraulic systems.	14.0%

### **REFERENCE LIST**

While the entire list of reference material will be useful to you in your preparation for the upcoming examination, the **majority** of test questions are sourced from those references listed under the Primary List.

### **PRIMARY REFERENCE MATERIAL**

**MODERN AUTOMOTIVE TECHNOLOGY**, James E. Duffy, The Goodheart-Willcox Co., Inc., 2004.

The local civil service board should make this study guide available to all applicants in whatever manner the board deems appropriate.

While there are no provisions requiring this office to provide study guides for any competitive or promotional examinations, such material will be provided as a service to assist applicants in preparing for an examination. The State Examiner's office has no control whatsoever over the local availability of reference material (mentioned in the study guides), nor do we feel constrained to limit examination questions to only that material which is available locally. Examination content, weighting of subject areas, and length of examination, may vary with each administration of an examination to reflect any updated job analysis information. Percentages and numerical estimations are provided as approximations.